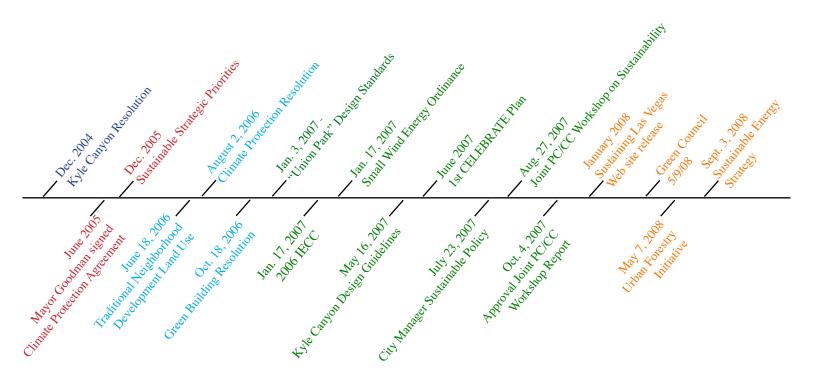
Sustaining Las Vegas — Policy Timeline





GREEN POLICIES

2004

Kyle Canyon Resolution (R-76-2004)

Established sustainable development guidelines for the Kyle Canyon Gateway Area, which were later used to negotiate and plan the city's first sustainable master planned community.

2005

US Conference of Mayors

Mayor Goodman signed the Climate Protection Agreement – essentially adopting the Kyoto Protocol at municipal level. The Kyoto Protocol requires a reduction of 7% below 1990 levels of all greenhouse gas emissions by 2012.

City of Las Vegas - Strategic Priorities

The City Council adopted Strategic Priorities that speak directly to sustainability -

- Create, integrate and manage orderly and sustainable development and growth of our community;
- o Support and encourage sustainability, livability and pride in our neighborhoods.

2006

Traditional Neighborhood Development (Ordinance #5811, 2005-69)

The Traditional Neighborhood land-use category establishes a zoning district, allowing for compact, diverse, pedestrian-friendly and mixed-use neighborhoods.

Climate Protection Resolution (R-57-2006)

The City Council adopted the Climate Protection Resolution, signed by Mayor Goodman; stating that the city of Las Vegas will reduce greenhouse gas emissions by 7% over 1990 levels, by 2012.

Green Building Resolution (R-81-2006)

By adopting this resolution, the City Council agreed to:

- The adoption of the city's Green Building Program,
- Direct 25 percent of any increase in franchise fees to be used for the city's cost to build new and retrofit facilities to LEED Silver or equivalent standards,
- Require that new city facilities meet LEED Silver or equivalent standards.

2007

Union Park Design Standards (Ordinance #5874, 2006-68)

The City Council adopted and integrated the Union Park Design Standards into the provisions for the Downtown Overlay District. The Design Review Committee will include sustainability in its review of each project. Each applicant shall design their project to a level of sustainability that is the equivalent of LEED Certified or greater.

International Energy Conservation Code 2006 (Ordinance #5882, 2006-79)

The City Council adopted the 2006 International Energy Conservation Code (IECC) standards, which applied to additions, renovation, alterations and repairs. The 2006 IECC standards increased the required energy efficiency for buildings by 15 percent.

Small Wind Energy (Ordinance #5885, 2006-79)

The City Council provided an opportunity for small wind energy systems, as a conditional use, within certain residential zones.

Kyle Canyon Development and Design Standards (DIR-21605)

The final Development and Design Standards for Kyle Canyon embrace the principles of sustainability and smart growth by ensuring the latest energy standards are adopted, all buildings will be part of the SNWA Water Smart Home Program, and the land use plan is environmentally compatible by preserving open space and the natural topography.

CELEBRATE – 1st Department Plan & Program

The Planning & Development Department introduced CELEBRATE to the city of Las Vegas through a sustainable action plan. The P&D CELEBRATE committee spent several weeks identifying action items, gathering data and formulating steps to reduce the department's greenhouse gas emissions. Contact: Paul Grimyser at 229-2397

Sustainability Policy - CM302 (July 23, 2007)

The Office of the City Manager identified sustainability as one of city's top three initiatives for 2008. CM302 establishes the purpose for the city's sustainability policy and objectives and standardizes a definition for all city departments. Contact: Brian Knudsen at 229-6501

Joint City Council & Planning Commission Joint Workshop on Sustainability

The Planning & Development Department hosted a Joint Workshop on Sustainability for the City Council and Planning Commission on August 27, 2007. Topics included the Urban Heat Island (UHI), AIA Blueprint for Las Vegas, Sustainable Community Design, Sustainable Transportation, and Transit Oriented Development. A report was presented to the City Council on October 4, 2007, which has provided direction for the city's sustainability initiative. Contact: Tom Perrigo at 229-2127

2008

SustainingLasVegas Web site

This portion of the city's Web site was created to serve as a community resource following Mayor Goodman's 2008 State of the City Address. The Web site features the city's latest sustainability news, official documents (ordinances & resolutions) and provides an opportunity to learn about sustainability – regardless of your level of expertise. SustainingLasVegas is a work in progress with several updates and additions scheduled for the future. www. sustaininglasvegas.com.

Urban Forestry Initiative (R-26-2008)

The City Council adopted the city's first Urban Forestry Initiative which recognizes the important contribution of trees to our community and their ability to help clean the air, improve stormwater management, conserve energy, reduce the urban heat index, improve public health and increase property values. The Urban Forestry Initiative established the following three goals: (1) Double the average tree canopy coverage to 20% by 2035, (2) work with existing partners to ensure that urban forestry remains a priority for the City and the Southern Nevada region, and (3) prepare an Urban Forest Management Plan.

The Green Council

The Green Council was formed to advise the City Mangers Office on measures to implement the AIA Blueprint for Nevada. The membership of the Green Council is diverse with representation from US Green Building Council (USGBC) Southern Nevada Chapter, American Institute of Architects (AIA), University of Nevada - Las Vegas (UNLV), Urban Land Institute (ULI), Southern Nevada Home Builders Association (SNHBA), Southern Nevada Water Authority (SNWA), Tate Snyder Kimsey Architects, Association of General Contractors (AGC), Southern Nevada Health District (SNHD), Lucchesi Galati Architects, Newland Communities, Tishman Realty & Construction Company, National Associate of Industrial and Office Properties (NAIOP) and city of Las Vegas staff.

Sustainable Energy Strategy (R-50-2008)

The City Council adopted the Sustainable Energy Strategy, which is a comprehensive strategy that recommends investments in energy conservation and renewable energy. The strategy establishes goals for: expanding the city's renewable energy portfolio, reducing the city's carbon footprint and adopts a life-cycle analysis for new City programs that considers sustainability, among other goals.

GREEN PROGRAMS

Green Building Programs

The Green Building Program's residential segment has been developed in conjunction with the Southern Nevada Green Building Partnership, formed by the Southern Nevada Home Builders Association and the Green Building Initiative. For a new home built by one of the partnership's builders to qualify as a green building it must meet certain requirements and is subject to third party verification as part of the program requirements. Contact: Tina Past at 229-2343

Alternative Fleet & Fuels

Currently, the city of Las Vegas has converted over 89 percent of its fleet to alternative vehicles. Fleet Services has been actively engaged in deploying an increasing number of alternatively fueled vehicles (AFV) that has garnered local and national accolades (see awards section) as well as conclusively proving the viability of cutting edge automotive technology. This effort has resulted in showcasing the city as a test-bed of innovative technological advancements in cleaner burning fuels that are domestically produced from renewable energy sources. Contact: Dan Hyde at 229-6971

CELEBRATE

CELEBRATE (City Employees Lowering Energy cost By Recycling And Tracking Efficiency) began in April 2007 in the Planning & Development Department. The P&D CELEBRATE committee spent several weeks identifying action items, gathering data and formulating steps to reduce the department's greenhouse gas emissions. After the launch of the P&D Action Plan in July 2007, several city departments formed their own CELEBRATE committees. An organization-wide CELEBRATE committee was formed by the City Manager office to break down silos and share information across departmental boundaries. Contact: Paul Grimyser at 229-2397.

CELEBRATE's Achievements – City-wide Changing default for two-siding copying,

- More departments are using paper with recycled content,
- Looking into delivering PDF documents instead of hard copies, unless hard copies are specifically requested,
- Stopping the purchase of bottled water,
- Increasing "green" requirement in contracts,
 Purchasing "green" cleaning and office supplies,
 Recycling unused paint,
- Adding more recycling stations throughout city facilities,
- Using biodegradable cups and utensils at public functions,
- Posting newsletters online and sending PDFs by email.

Solar Powered Flashers

Public Works installed 30 solar-powered school flashers. The city benefits from a reduced carbon footprint and saves money from construction costs. Public Works is procuring another 20 and evaluating the cost effectiveness of converting existing systems. Roadways around schools become environmentally friendly and safer for school children. Contact: Niel Rohleder at 229-6015

Traffic Signals

Traffic Division crews have retrofitted traffic signals with new light emitting diodes, or "LED's." LED's have cut costs by 85 percent which translates to an annual savings \$158,000. LED's have a seven-year life expectancy, far surpassing the 12 months of traditional light bulbs. Contact: Niel Rohleder at 229-6015

Power Down

The Information Technology Department's "Power Down" program is achieving significant results, saving \$31,696 and reducing 240 tons of CO2 emissions annually. The 800 employees are contributing to this effort. Contact: Mike Hougen at 229-1025

Trench-less Sewer Replacement

Sanitation planning efforts over the past five years have rehabilitated over 15 miles of sewer interceptors using trench-less technology. Renewing sewer interceptors in this manner reduces cost, \$3 to \$7 per inch diameter of sewer per linear foot of pipe for trench-less rehabilitation, whereas open cut rehabilitation is greater than \$7 per inch per foot. It saves energy by reducing fuel consumption and reducing the waste send to landfills, preserves natural resources – with no pavement to replacement. Contact: John Day at 229-4864

Union Park LEED-ND (Neighborhood Development) Pilot

Union Park is the only project in the state of Nevada to be accepted into the Leadership in Energy and Environmental Design (LEED) for Neighborhood Development (ND) national pilot program. The program, developed by the U.S. Green Building Council, is creating a rating system that integrates the principles of smart growth, urbanism and green building into the first national rating system for neighborhood design. The program is a collaboration between the U.S. Green Building Council, the Congress for the New Urbanism, and the Natural Resources Defense Council. This places Union Park and the city of Las Vegas among the nation's most elite developments that will adhere to strict standards of energy, land and materials use. Contact: Scott D. Adams at 229-6551

Transportation Trails Plan (Roadway Planning)

Roadway Planning has successfully worked with the Regional Transportation Commission to develop an alternate mode of transportation plan. Through this plan, trails and bike lanes/routes are funded by private development as well as federal and local funds (current trails network would require an additional \$39 million to complete (49 miles to complete at \$800,000/mile). The idea behind the alternative mode plan is to provide non-motorized transportation to city residents. A study done by the RTC estimated that less than 1% of annual transportation trips were made by bicycle. If applied to an average 20 mile round trip commute, the average cost savings would be \$3.42/day per bicycle commute (gasoline estimated at \$3.10/gal). At the current rate of only 1%, the fuel savings to city residents would be approximately \$20,000/day. By improving the safety and connectivity of our trail and bicycle network it is expected that these numbers will increase dramatically. Contact: Greg McDermott, P.E. at 229-2143

ICLEI - Greenhouse Gas Modeling

The city of Las Vegas has joined the International Council for Local Environmental Initiatives (ICLEI) in July 2007 (one of 250 cities in US and 500 cities worldwide that represent over 300 million people). The city is a member of the Cities for Climate Protection (CCP) Campaign, which uses five "milestones" to measure and report on the city's greenhouse gas emissions. The milestones include:

- a. Conducting a baseline emissions inventory and forecast
- b. Adopting an emissions reduction target for the forecast year.
- c. Developing a Local Action Plan.
- d. Implementing policies and measures.
- e. Monitoring and verify results.

The city is currently conducting a baseline emission inventory and forecast for 1990, after conducting some initial experiments with fiscal year 2006. Contact: Paul Grimyser at 229-2397

Club Ride

City employees can do their part to help improve the air, traffic conditions and commute by using alternative commute transportation. Carpooling, vanpooling, biking, walking or using transit four times a month will help to keep the air crystal clear and the traffic moving smoothly. Participants in the Club Ride program are eligible to receive some great rewards and important benefits just for using alternative transportation. Contact: Meli Roybal at 229-6674

Synthetic Turf Replacement

Field Operations – Parks & Open Space Division converted 292,298 Sq. Ft. of grass to synthetic turf from May 2005 to June 2007. The city received \$255,131 in rebates from the Water District, and saves over \$45,000 annually from decreased water bills. Contact: Clair M. Lewis at 229-2096

Biometrics

Leisure Services is upgrading the class application used for tracking memberships, registration and retail sales transactions. Instead of using the costly plastic membership cards and related equipment (\$2,500 setup per site - \$15,000 in supplies annually), Leisure will be transitioning to Biometrics (\$237 setup per site - \$0 in annual supplies). The city will see the savings when Leisure expands the class application to all Safekey and Rec-Pass sites. The costs to expand the current system would exceed \$217,500 for an additional 87 facilities (not factoring in annual supplies), whereas retrofitting the existing sites with Biometrics and adding the 87 facilities will cost \$25,200, reducing setup costs and savings money over the long-term on annual supplies. Another benefit to Biometrics is the reduction in the number of plastic cards – Biometrics will eliminate over 14,000 plastic membership cards and related printing equipment. Contact: Oscar Sida at 229-6130

Recycling & Reuse

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA) acts promulgated in the 1980s created a "cradle to grave" responsibility for regulated and hazardous materials/wastes. The response to the federal legislation paved the way for recycling because the largest industries wanted to reduce their liability (and costs) and the amount of waste they produced (and costs). We did the same the city did and its recycling program began two decades ago. Contact: Jeff Dix at 229-1160.

The city recycles:

- 1. Paper
- 2. Plastic
- 3. Aluminum Cans
- 4. Methane Gas (See below)
- 5. Printer Toner Cartridges
- 6. Copier Toner Cartridges
- 7. Ink Cartridges (See below)
- 8. Cell Phones/Blackberries
- 9. Dell CPUs
- 10. CRTs
- 11. Vehicle Batteries
- 12. Non-Vehicle Batteries
- 13. Cardboard Boxes
- 14. Used oil (hydraulic oils, transmission fluids, (See below)
- 15. Aluminum Signs
- 16. Scrap Metal General waste un-separated

- 17. Antifreeze (See below)
- 18. Refrigerant
- 19. Waste Water (See below)
- 20. Fire Dept. Clothing
- 21. Grease at Jail
- 22. Clothing at Jail
- 23. Wood Pallets
- 24. Plastic Shrub Buckets
- 25. Furniture
- 26. Scrap Copper (wire and pipe)
- 27. Scrap Aluminum (cast)
- 28. Scrap Iron (cast)
- 29. Vehicle oil filters
- 30. Scrap Stainless Steel
- 31. Fire Vehicle Drum Brake Shoes (reline and reuse)
- 32. Fire Truck Hand Tools (axes, pry bars, etc.)



Ink Cartridges

Purchasing & Contracts has awarded an annual contract to Jet Tec USA/The Recycling Factory to collect spent or used inkjet printer cartridges from all city-owned facilities. Please note that the Corporate Express is the contracted supplier for new inkjet and toner cartridges and the city will continue to utilize Corporate Express for recycling of toner cartridges. Contact: John R. Lonborg at 229-1826



Solvent/Used Oil

Public Works recycles solvents and used oils as fuel. Recycling these chemicals prevents 990 gallons of fuel from being burned for energy, which saves 8.78 tons of CO2 that would emit from the fuels into the atmosphere. This process cost the city \$18,000 per year, but minimizes hazardous waste generation. Contact: Cheng Shih at 229-2338



Aerosol Cans

Public Works is recycling the metal from 800 aerosol cans each year. While the program costs the city \$4,000 annually, this recycling effort reduces metal that would be classified as hazardous waste. Contact: Cheng Shih at 229-2338

Antifreeze

Starting in the summer of 2007, Fleet Services switched to recycled antifreeze. This change saved the city money and space. Instead of stocking five types of antifreeze; ranging from \$10 - \$20 per gallon; they purchases one type of antifreeze that costs \$3.75 a gallon. When used the recycled antifreeze is stored in 55 gallon drums and picked up by a vendor – cleaned – and then returned for reuse. Contact: Don West at 229-5153

Fluorescent Light Tubes

Public Works recycled 12,000 fluorescent light tubes per year, preventing 60 grams of mercury and waste (tubes) from being placed in the landfill. This recycling effort costs the city about \$50,000 per year. Contact: Cheng Shih at 229-2338

Methane Gas

The Water Pollution Control Facility (WPCF) found a beneficial use for the methane gas created by the solids stabilization process. This methane gas is used to run two 900 horsepower engines that are coupled to large process air blowers. The WPCF has a heat recovery system that captures heat from the engine exhaust and provides heating for the hot water loop. This exhaust is used to fuel 4 boilers that provide hot water to the facility. Normally, these boilers would be fueled by natural gas. This saves \$1,300 in energy cost per day in the peak summer season. Contact: Charles Trushel at 229-6200

Reclaimed Water

Annually, the Environmental Division produces 1.68 billion gallons of recycled water from the three waste-water treatment facilities for golf courses and cooling water in power plants. Golf courses are not utilizing potable water for irrigation, saves money and energy from pumping and distributing water from across the valley and the treatment facilities use the reclaimed water internally to lubricate pumping equipment to the backwashing filters. Contact: Charles Trushel at 229-6200

o Water pollution control facility equipped with low emission controls, increasing capacity by 33 percent while reducing emissions 50 percent.

OUTREACH

The city of Las Vegas is actively promoting sustainability. The city released Sustainable Las Vegas 2007 at the State of the City Address, providing information about what the city is doing to create a sustainability city. The following are a few examples of public outreach for sustainability:

SustainingLasVegas Web site

The city's sustainability Web site is a work in progress. IT, Planning & Development and the City Manager's Office began working on the Web site in the Fall of 2007. With the first phase almost complete – the city will be announcing the release to the general public in the spring of 2008. www.lasvegasnevada.gov/sustaininglasvegas

Tips for Going Green

The tip guide is currently available on the Inside Las Vegas Intranet Site and is provided to the general public at events (Tennis Channel Open, Earth Day). It also will be posted on the SustainingLasVegas Web site.

Presentations, Events & Exhibits

City employees have been busy spreading the word about sustainability. Representatives from Planning & Development spoke at U.S. Green Building Council's (USGBC) monthly meeting, Kiwanis Breakfast, Las Vegas Chapter of the American Planning Association (APA) the Ward 6 Energy Fair at Centennial Hills Park, SNHBA Home Builders Show, NAIOP Government Affairs, UNLV Earth Day Celebration and the Solar Home Tour – at the Springs Preserve. The city provides brochures, pamphlets and other materials that promote sustainability upon request.

Partnerships

The city of Las Vegas has strengthened its partnership with the University of Nevada – Las Vegas (UNLV) through the co-sponsorship and attendance of the following UNLV conferences and events:

- Energy Symposium (August 15 16, 2007)
- Urban Sustainability Conference (October 24, 2007)
- Green Roof Symposium (February 13, 2008)

The city works closely with the UNLV's Urban Sustainability Initiative and is partnering with several departments to encourage research on sustainable topics.

GREEN AWARDS & RECOGNITION

World Leadership Awards

The City of Las Vegas was named the American City of the Year at the December 2007 World Leadership Awards in London. The City also won first place in Leisure and Sports category for the Centennial Hills Master Planned Campus, and placed first in the Transportation category for the Alternative Fuel Program

Alternative Fleet

Along with the World Leadership Award mentioned above, the Alternative Fuel Vehicle (AFV) Program has received a series of awards over the past couple of years:

- The Innovation Groups Award received June 1, 2006 for "Innovation in Government," and
- The Michael T. Halbouty Award was received in April 2006 from Washington DC based National Defense Council - adviser to Presidents and the Congress on the promotion of Energy Security and Alternative Fuel Deployment Excellence; and
- Congressional Recognition from Congressman Jon Porter on July 28, 2006 paying tribute to the City for its unwavering commitment to improving the quality of Las Vegans lives through the development and deployment of alternative fuel technologies.
- 2005 Best Workplaces for Commuters by the Environmental Protection Agency (EPA)
- 2004 Horizon Award Recipient from the Regional Transportation Commission (RTC)

City's Sustainable Partners

- ENERGY STAR
- International Council for Local Environmental Initiatives (ICLEI)
- National Association of Industrial and Office Properties (NAIOP)
- Nevada Conservation League (NCL)
- Rocky Mountain Institute (RMI)
- Southern Nevada Home Builders Association (SNHBA)
- Southern Nevada Water Authority (SNWA)
- Trust for Public Lands (TPL)
- University of Nevada Las Vegas (UNLV)
- Urban Land Institute (ULI)
- US Green Building Council (USGBC)